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ABSTRACT

The document presents transcriptions from a symposium on mainstreaming at the secondary level. The following seven projects are briefly described: the Parallel Alternate Curriculum for Secondary Classrooms in Arizona (a compensatory program developed and conducted by regular educators with special educators' support); Operation Divert in Florida (an attempt to divert the student from the criminal justice system and to teach community living skills); Kansas' Project STILE--Strategies to Increase Learning Efficiency among learning disabled students (an effort to teach crucial learning skills to learning disabled students); the Model Resource Room Project in Michigan (a model designed to promote cooperative planning by regular and special educators); the Oklahoma Child Service Demonstration Center (an individualized diagnostic/prescriptive teaching intervention system based on a resource room model); the Child Service Demonstration Center for Secondary Students with Learning Disabilities in Pennsylvania (a collaborative venture between a university and the local education agency); and the Synergistic Education model in Texas (a program with a high intensity learning center, parent program, content mastery program, and essential skills program). A final paper notes 11 implications of the programs for teacher education, such as that teachers must be trained to seek further information and that teachers must have skills of organizing, problem solving, and planning. (CL)

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MAINSTREAMING AT THE SECONDARY LEVEL:

SEVEN MODELS THAT WORK

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A joint product of

The Model Resource Room Project (Title IV-C)
Plymouth-Canton Community School District

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- and -

The Making Mainstreaming Work Project (Title VI-B)
Wayne County Intermediate School District

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PREFACE

Special education at the secondary level has long been a neglected area. As trainers and providers of service in special education, we have received an increasing number of requests for information and assistance in establishing secondary programs. The purpose of this document is to provide an overview of a sampling of secondary special education models from around the country in an effort to convey at least some of the exemplary practices we have found.

Representatives of the participating projects convened at the Wayne County Intermediate School District in Michigan in June, 1980, to conduct a symposium on mainstreaming at the secondary level. *Each presentation was videotaped, and the transcriptions were edited for this document.*

The models included herein are but a sampling of numerous programs throughout the country They represent a range of philosophical and educational perspectives. Each has distinctive features which merit consideration. In addition, a number of similarities may be found among these models revolving around the issue of mainstreaming. It is not our purpose to endorse any particular approach. Rather, these models are offered for consideration in light of the reader's own unique needs.

More specific information about these models may be obtained by contacting the individual projects. A list of the projects and their addresses is included for this purpose. Additional copies of this publication or the videotape series may be obtained at cost by contacting the editors.

ACKNOWLEDGEMENTS

We wish to express our appreciation to those whose assistance was invaluable in helping us bring this endeavor to fruition.

Dr. Edwin Page and Dr. James Greiner have provided continuing and enthusiastic support for the entire production, and have helped pave the way for its completion.

Excellent technical assistance in videotaping was provided by Zita Kutkus. Her skill in directing the technical aspects of this endeavor gave us much support and confidence.

Thanks also are due Bob Dietiker for his moral support and his assistance in on-the-spot logistics.

Special thanks go to Susan Moore and Janet McCarthy for their prodigious efforts in arranging for the comfort of the participants. Their excellent organizing support has proven invaluable to the completion of this work.

And finally, we would like to dedicate this work to the unflagging efforts of the many project staff, teachers, parents and students who have been involved in the development of the models presented. Their concern and consistent dedication to the improvement of educational practices gives us increased optimism.

R. Hunt Riegel

John P. Mathey

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PARTICIPATING PROJECTS

The Parallel Alternate Curriculum
Arizona State University Child
Service Demonstration Center in
Secondary School Age Learning Disabilities
U.S.O.E. Title VI-E
Dr. Douglas Wiseman and
Dr. L. Kay Hartwell, Co-Directors
Arizona State University
Department of Special Education
Tempe, Arizona 85281

Presented by Doug Wiseman

* * * * *

Operation Divert: A Model Program for
Learning Disabled Juvenile Offenders
U.S.O.E. Title VI-G
Dr. Joseph Cox, Director
Community Mental Health Center
1201 W. Hernandez St.
Pensacola, Florida 32501

Presented by Joe Cox

* * * * *

Strategies to Increase Learning Efficiency
among Learning Disabled Adolescents (STILE)
U.S.O.E. Title VI-E
Steven Carlson, Director
Unified School District 497
Lawrence High School
1901 Louisiana St.
Lawrence, Kansas 66044

Presented by Steve Carlson

* * * * *

Model Resource Room Project
E.S.E.A. Title IV-C
Dr. R. Hunt Riegel, Project Director
Plymouth-Canton Community School District
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Plymouth, Michigan 48170

Presented by Hunt Riegel

* * * * *

Oklahoma Child Service Demonstration Center
U.S.O.E. Title VI-G
Deborah Murphy, Director
Hillside School
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Cushing, Oklahoma 74023

Presented by Cheryl Hayes

* * * * *

Child Service Demonstration Center for Secondary
Students with Learning Disabilities
U.S.O.E. Title VI-G
Dr. Naomi Zigmond
Program Director, Special Education
University of Pittsburgh
5M36 Forbes Quadrangle
Pittsburgh, Pennsylvania 15260

Presented by Lorie Buchbach

* * * * *

The Synergistic Classroom: A Child
Service Demonstration Center
U.S.O.E. Title VI-G
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Lawrence, Kansas

Dr. Marilyn Fender
University of Wisconsin
Oshkosh, Wisconsin

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University of Minnesota
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Minneapolis, Minnesota 55414

INTRODUCTION

(The following is a transcript of Dr. Deshler's comments to the symposium participants.)

The seven models we will review have been implemented in secondary schools throughout the country during the past three to five years. During that period of time these models have had a significant impact on the lives of handicapped and low-achieving students both in school and out of school. It is interesting to note that although most of these programs started independently in different school districts and different areas throughout the country, as they have come to fruition, we note several common features. I would like to address some of the common threads that run through these programs as they seem to be ones that are worthy of consideration as programs are adopted for replication in other school settings. Also, I will be pointing out the features of some of the models that should be considered when programming for a specific student or small groups of students.

All projects have, as a point of departure, considered the students' learning characteristics. The adolescent population represents some unique manifestations of handicapping conditions and thus, these students are not just elementary students who have grown up. These students have to operate within a totally new setting and, consequently, it is important to consider the unique characteristics they bring to the academic situation. Related to student characteristics is the common recognition of failure in basic skills manifested in inability to cope with the demands of the regular classroom setting.

Another common feature of most models is the observation that programming for specifically placed and identified learning disability students is not sufficient. Other students within the school setting manifest characteristics very similar to those of students with learning disabilities, and it will be noted that several of the programs have expanded their services to all low achievers. As a final point concerning student characteristics, most of the models address mild to moderately handicapped students. While there is some recognition of the problems of the severely handicapped adolescent, at this point in time, we seem to have a better understanding of the problems confronting the mildly to moderately handicapped rather than the severely involved student. The specific problems of the severely handicapped adolescent remain a challenge for the years to come.

Another common feature that all programs allude to is the importance of considering the characteristics of the setting and the environment in which the students operate. It is not enough just to look at the student as we have done for many years in special education. By studying the setting we can come to an understanding of why a student is failing, and also gain an understanding of the kinds of skills a student might need in order to cope with a particular academic situation, as well as the out-of-school environment that is so well illustrated in the Florida program by Dr. Cox.

All models address very directly their philosophy. While there are common elements and common threads in the philosophies of the individual programs, it is interesting to note and very important to understand that there are some very distinct features. For example, some programs advocate the teaching of basic academic skills. It is believed that a student cannot be expected to endure the demands of the school setting or of the out-of-school setting if she/he does not have basic competency in reading, writing and arithmetic. Others take a slightly different focus; they say that while basic skills are important, we must expand that list and look at other skills such as remembering strategies, learning strategies, organization skills, etc. Yet another philosophical approach is to choose functional competencies reflecting the demands that students must meet or will meet in out-of-school environments. In these programs students are taught how to deal with issues related to consumerism, the law, drugs, etc.

Somewhat on the other side of the ledger are models that emphasize looking at the environment that the student has to cope with. In these models the intervention focuses on the system rather than the student. This is illustrated, for example, through the work of the Arizona program with a Parallel Alternate Curriculum.

A feature related very closely to philosophy is the

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content that is delivered within the various models. Again, we see much overlap among programs. We also find some very unique features in some of these models. For example, some programs value teaching career education as a definite component of content delivered to special education students within the resource center. Others place great importance on an affective component, pointing out that while a youngster is encountering academic difficulty, such academic difficulties really flow over into poor self-concepts, feelings of lower self-esteem, and so forth. Thus, we see emphasis in many programs on nonacademic kinds of content.

It is important to note how different models assume sometimes more responsibility and sometimes less responsibility for content. In some instances, we see the resource room completely conceptualized as a support service; the content is defined within the regular curriculum and the resource room staff provides support to the student making it there. In other instances, the resource room and the personnel within that room assume responsibility for curriculum development and delivery. Each of these options has definite implications for the professional training of the teachers and the amount of time staff allocate to each activity within a program.

Another feature that several programs allude to is a specific methodology of instruction. This represents a recognition that the students we are dealing with are ones who bring to the learning situation a unique learning style or some learning differences. Thus, the Kansas project delineates eight steps of instructional methodology the students are taken through to teach them specific learning strategies. The Parallel Alternate Curriculum focuses on how students learn and not necessarily on what they learn (again, emphasis is on how we are going to deliver instruction to students who have difficulty in learning). As part of the Houston project, the High Intensity Learning Center is a structured set-up designed to deliver intensive instruction to handicapped learners over a short period of time.

Another feature that all models allude to is the need for support services beyond the resource room or special class setting. There is a clear recognition by all programs that success for the handicapped adolescent will not be achieved by special education assuming full responsibility for the educational program. Mention is made of parent programs and the need for family involvement. Several programs set up specific support classes in such areas as study skills, specific teacher-pleasing behaviors, and so forth, again representing support services to regular class instruction with specific instruction delivered in the resource room.

Related to support systems within the school setting is the importance of indirect services provided to students after they leave the resource room and are back in the regular classroom. The program developed in the Plymouth area outlines a good procedure for cooperative planning between regular staff and special class teachers. The implication for indirect services through cooperative planning should not be minimized. In order for such services to be successful, however, some definite administrative arrangements must take place. Time must be allotted for planning, curriculum development, and consultation. Without such modifications we are fooling ourselves to think that we are to have any impact through indirect services.

Another feature alluded to in most programs is the importance of motivation. Learning disabled students come to the secondary schools with a long history of failure, and consequently, they are tuned out to school. The following approaches to motivation are represented by various projects. The Florida project uses a direct behavioral technology for motivating students. In the Houston and Oklahoma projects an emphasis is first placed on teaching students to feel good about themselves, whereupon the focal point becomes the actual instruction. In the Kansas project a more academically directed approach to motivation is used.

The use of instructional materials is another component in all the programs. Interestingly, very few references are made to specific kits and prepared materials. Rather, common reference is made to modification of existing materials perhaps by highlighting, by using study guides or by using tests at different reading levels to teach students to apply skills more closely approximating the demands of the regular class.

A final feature that is common to all projects is the importance of generalization and maintenance. The clear concern in all the models (and, in my opinion, one of the strengths of the models) is that they all attend to the real world these youngsters must face in the regular classroom and in an out-of-school environment. We may be able to do magic in the resource room, but if we fail to teach specifically for generalization and maintenance, most of our efforts will fail. A very strong feature of all of these models is their attention to generalization.

In summary, as we consider these models I think it is important that we recognize that for the most part they are not comprehensive in and of themselves. They represent strong elements in their component parts, but as the years go on the truly ideal program will be one that draws components from each of these programs. It is also important to recognize as we make decisions about programming in the secondary school that there are many features to be considered. We have mentioned some of these, such as student characteristics, the training of the teacher and the philosophy of the teacher. All these elements must be considered. There is a strong temptation after listening to a discussion of any or all of these models to say, "This is the one I want. I am going to put it in my schools". The problem with that reasoning is that no two schools are the same. If, for example, we want to put a Parallel Alternate Curriculum in another school, there has to be a clear recognition of what has happened to make it work within the school where it is currently working.

Finally, I think I speak on behalf of all the representatives of these and other models when I say that all are in a stage of development. What is presented here represents a point in time. Each of the statements made must be carefully analyzed and critiqued. As we make decisions about serving students within secondary schools, it is important to not only ask questions about what others are doing, but carefully review what we are doing as well.

THE PARALLEL ALTERNATE CURRICULUM FOR SECONDARY CLASSROOMS

In 1977 the Department of Special Education at Arizona State University received a Child Service Demonstration Center grant from the Bureau of Education for the Handicapped to develop and implement a comprehensive program at the secondary level for learning disabled students in the Mesa, Arizona public schools. Initially the project directed its efforts to assist the learning disabled student, but it was soon found that secondary educators would not make major program modifications for only a few learning disabled students. Therefore, the emphasis of the project was changed to accommodate a much larger segment of the school population: the low achiever.

Low achievers comprise a group of people of many abilities and backgrounds. Students with severe reading problems, students who are bilingual, multicultural, of low socio-economic background, mildly handicapped and so on are included. A large screening effort was undertaken, which revealed a definite multi-strata population in the schools. This student population was basically made up of gifted students, regular students, low achieving students and mildly handicapped students, of which about 40% were low achievers. Any required course included all levels of this multi-strata population.

An analysis of the planning conducted by teachers showed that they were essentially planning for a homogenous population. In many ways it appeared that teachers had adopted the model of the university classroom, assuming homogeneity of ability, intelligence, basic skills, motivation and so on. This was a particularly inappropriate teaching model, considering the population of students in the classroom.

Philosophically, the Parallel Alternate Curriculum is a compensatory model. It is developed by regular educators and implemented by regular educators; special educators play a supportive role. In developing this program, we identified components which would constitute a comprehensive program. We found that it was not sufficient for individual teachers to modify their programs for the student; it had to be a school-wide commitment and effort.

Six components were identified as being important in this comprehensive program, the first component being testing and evaluation. We developed a screening program that was inexpensive and based on data that were already available in the schools. It was found that junior high school total achievement test scores correlated with tenth grade reading performance ($r = .85$), giving us a data base. We were then able to develop a system for identifying low achievers as they entered the high school setting. Nothing like this had been attempted before. (Prior to this, the schools had used a more subjective referral system.) Within the testing and evaluation component we also found that there was no systematic placement of students who were regarded as low achievers. There were no optional courses available to them and their scheduling was haphazard. Every student, in essence, had to select his own courses. One student, for example, had three physical education courses and one physics course (he thought physics was a form of physical education). We concluded that scheduling should become an important element within the testing and evaluation component.

The second important component in this model is remediation. Basic skills are absolutely essential for the secondary student. However, we have observed that not all secondary students improve in reading in their content courses. While high achievers do, low achievers do not. In essence reading is a remarkable learning medium only if one is already a good reader. For remediation of basic skills, systems were developed within special education. This component, then, was taught apart from the regular classroom.

The third major component (and the heart of the project), is the Parallel Alternate Curriculum (PAC). In essence the PAC represents a non-reading curriculum. Every option imaginable is used to transfer the content of the course from the teacher and the textbook to the student. Basically, the purpose of the Parallel Alternate Curriculum is to use every option available to teach a student who can't read or doesn't function well in the classroom. We have found that it is not what you teach but how you teach that is so critical to teaching the secondary student. The Parallel Alternate Curriculum provides information through a variety of methods, circumventing the disability of the low achiever.

We have found that three basic elements are

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essential for developing the PAC. The first is organization of the material. Low achievers learn very differently than regular and high-achieving students. The secondary teacher expects the student to go into the textbook, identify relevant points, and be able to organize and use them. We found that the low achiever cannot do this so we reorganized the content. We identified everything the student needed to know and then provided lists of essential information to be learned. Organization of the material, then, is quite different for the PAC.

The second element within PAC is teaching. It is difficult to teach students who can't read if one's basic approach to gathering information is through reading. We found that listening to the content is very effective for some students, while other students prefer listening while reading. In a Parallel Alternate Curriculum, teachers use every possible instructional device they can think of to get information across to the students. In essence, knowledge is king. What they are trying to do is ignore the "scholarly" approach to learning and instead concentrate on the student mastering the material. It doesn't matter how — just that he learns.

The third important element in PAC is testing in alternative ways. We found that many of the students cannot write essay exams. The readability level of many objective tests is so high that it presents great difficulty to low achievers. Often teachers are not measuring what the student knows, but rather his ability to read and write. This was a very frustrating experience for the students until we developed alternative methods for responding (such as dictating test answers to a peer tutor who would write them down). In short, we identify a wide variety of ways to test how well a student has learned.

The fourth component in the program is personnel training. We found immediately through needs assessment that inservice was necessary. Teachers very readily admitted that they had no idea how to teach low-achieving students. This kind of training had generally been omitted in their secondary teacher training programs, so we developed a teacher cadre. In concert with the teachers in the building, an inservice program was developed. This inservice program included a number of alternatives. We found, for example, that teachers do not like the after school *enmasse* inservice training programs, so a number of alternatives were developed to assist in the procedure.

The fifth major component of our program is parent involvement. We found that parents were very suspicious of the secondary schools, so we conducted a needs assessment to identify what some of the particular needs of parents were. (How did they want to be involved in the school?; What was their role?; Were they advocates?; Were they passive?) We developed systems of personalized training for parents and set up a parent training center. We taught parents, for example, how to participate in an IEP meeting. This became an important element, particularly for the special education students; the more involved the parents of the special education students were, the happier the situation became.

The sixth major component is what we call the preventative section. This component deals with three areas of interest: developing study skills; support programs; and survival programs. In developing study skills courses, we found that there were few materials available to teach necessary study skills, so the regular education program developed a study skills course to teach the students to listen, to study, how to use a textbook, how to organize materials, and the like. We taught them to cope in a hostile environment. It was found that many students could handle the material with ease if they had a little help, so peer tutoring programs were established in the school. We instituted buddy systems within the classroom, in which high-achieving students were paired with low-achieving students, supplying them with notes and other assistance which would help them perform in the school. Finally, as a third part of the preventative component, survival courses were taught which emphasized living skills (such as home economics courses) and fundamentals of English (for example, how to write sentences).

These six components of the PAC program comprise a comprehensive program. Among the strengths of this model were that the students liked the program. They felt they benefited from it. Of the teachers who were involved in developing the program, 88% felt very good about it and reported that they wanted to continue this approach. Parents

of the students liked the program and felt very supportive of the fact that the students were coming home enthusiastic about school — something that parents rarely see with low achievers.

Running a Parallel Alternate Curriculum, even considering the use of various audio-visual materials and taping textbooks, was very cost efficient and the school felt it could afford this with no difficulty. As a matter of fact, the Mesa Public Schools have adopted the PAC program for all of their secondary schools. In addition, this is not a difficult program to administer.

Some of the problems of the model are inherent in most secondary programs trying to help low-achieving and mildly handicapped students. There is a basic philosophy in the public schools at the secondary level which leads one to teach to the "average" child. Preparing a program for a particular ability level among students works against the development of such programs as ours. A second problem is that many secondary educators feel that these students just don't belong in the regular class. A third problem is that secondary teachers are not trained to work with low achievers. A rather interesting problem we encountered is that there were so many students that needed PAC and wanted this particular program that the classes were overloaded at times, with 40-50 students while non-PAC courses had 25. In spite of these difficulties, many teachers have tried the approach taken in this model, and have reported finding it beneficial.

In summary, a Parallel Alternate Curriculum is a compensatory program developed and implemented by regular educators and supported by special educators. Both basic skills and content area subject matter are emphasized within the program, which has had very positive results.

OPERATION DIVERT: A MODEL PROGRAM FOR LEARNING DISABLED JUVENILE OFFENDERS

Operation Divert is a Child Service Demonstration project serving learning disabled juvenile offenders. It was funded in 1977 and is part of the Community Mental Health Center in Pensacola, Florida. Many research studies of the past decade have indicated a link between juvenile delinquency and learning disabilities. Although many of these investigations have been poorly designed they have indicated incidence figures suggesting that between 30 % and 80% of the juvenile delinquent population are handicapped by a specific learning disability. Two studies which appear better designed than most were those conducted by Alan Berman in the late 1960s in Rhode Island (Berman, 1972) and the recently completed project that has been conducted in several cities throughout the country, managed by the Association for Children with Learning Disabilities (ACLD) (Kratoville, 1978)

Several models have been proposed to account for the learning disabilities-juvenile delinquency link. One of these models is entitled the School Failure Process (see Figure 1). Features of this model and its functions are that the learning disabled child at an early age is perceived by adults as a disciplinary problem. The child suffers from poor academic achievement and other children see the child as being socially awkward and unattractive. All of these problems culminate in truancy, suspension and dropping out of school as the child moves into adolescence. This increases the probability that the child will engage in delinquent behavior. A second model is entitled the Labeling Process (see Figure 2). This also has some of the features of the School Failure Model in that it suggests that adults perceive the child as a disciplinary problem, that the child suffers from poor academic achievement, and that other children perceive the child as socially awkward and unattractive. For these reasons the child may be labelled and grouped with other problem students. This provides the child opportunities to associate with dropouts, troublemakers and pre-delinquent children, leading to school dropout, truancy, or suspension, which then may lead to delinquent behavior. The third model is referred to as the Susceptibility Process and this more than the others posits the nature of the learning disability as a reason for involvement in delinquent behavior. Some of the assumptions of this model are that the learning disabled child is generally impulsive, has poor reception of social cues and a poor ability to learn from experience. All of these result in the decreased effectiveness of the usual sanctions and rewards that society uses to socialize children, and therefore create an increased susceptibility to delinquent behavior (see Figure 3).

Another model that has recently been developed is based on data that have been collected by the ACLD Research and Development project. These data suggest that learning disabled students do not commit crimes more frequently than other adolescents, but that they are caught more frequently. In fact, these data indicate that a higher percentage of adolescents handicapped by a learning disability are found in the juvenile delinquent population. The suggestion is that it is not the learning disability which causes the adolescent to become involved with the law, but that he does not have the skills to talk his way out or to avoid being caught after commiting a crime.

The hypothesis upon which Operation Divert is based posits that learning disabled adolescents are working toward recognition and acceptance as worthy human beings from their earliest years (see Figure 4). They have great difficulty achieving recognition because the learning disability obviates positive regard from teachers and parents. The learning disabled student is unable to achieve in two areas of value to the key figures in the child's life (parents and teachers). Unable to achieve academically, the student may resort to inappropriate mechanisms for gaining attention; fighting, lying, stealing or non-compliance may be manifestations of the learning disability and of the student's need to achieve a place of significance in the social structure of the home and school. As the child moves into adolescence, inappropriate attention-seeking techniques may become routinized in truancy and other more serious violations of the law. The learning disabled student then may become involved with the juvenile justice system and be adjudicated.

Operation Divert is designed to intervene as soon as the adolescent enters the justice system.. Its

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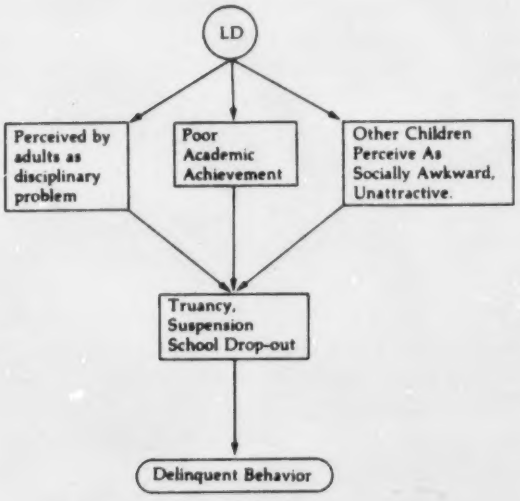
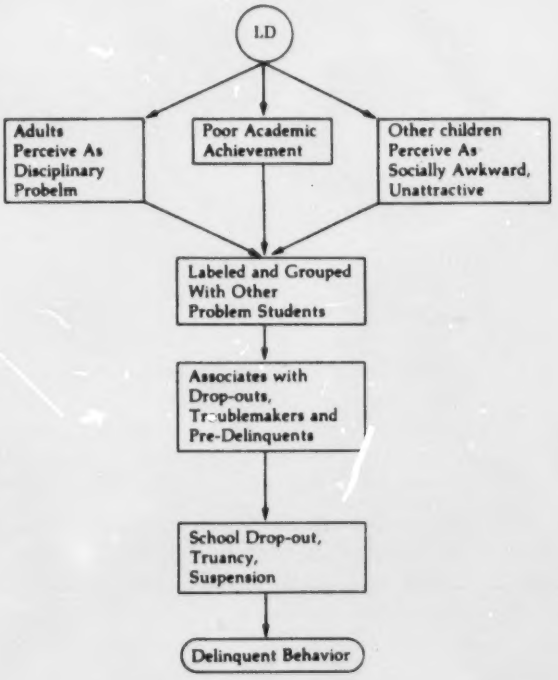
Pensacola, Florida

Figure 1. The School Failure Process



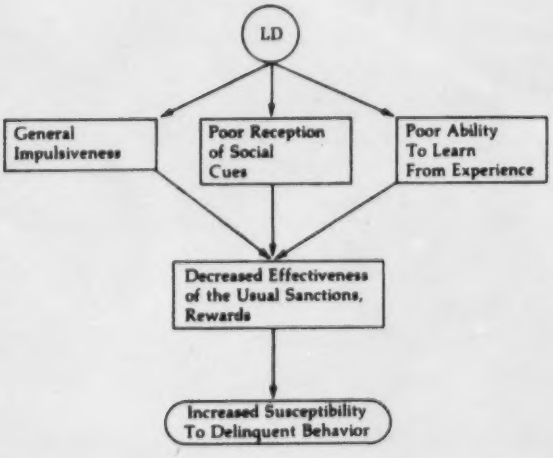
Adapted From LEAA JD-LD Study
April, 1976
by C. A. Murray

Figure 2. The Labeling Process


LD
Adults Perceive As Disciplinary Probelm
Poor Academic Achievement
Other children Perceive As Socially Awkward, Unattractive
Labeled and Grouped With Other Problem Students
Associates with Drop-outs, Troublemakers and Pre-Delinquents
School Drop-out, Truancy, Suspension
Delinquent Behavior

Adapted from LEAA JD-LD Study
April, 1976
by C. A. Murray

Figure 3. The Susceptibility Process


LD
General Impulsiveness
Poor Reception of Social Cues
Poor Ability To Learn From Experience
Decreased Effectiveness of the Usual Sanctions, Rewards
Increased Susceptibility To Delinquent Behavior

Adapted from LEAA, JD-LD Study
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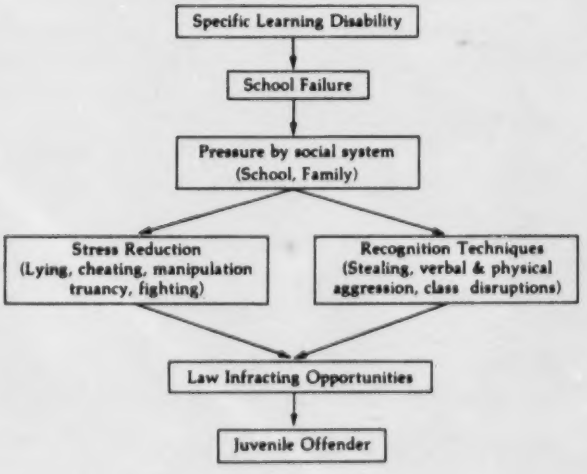
Figure 4. OPERATION DIVERT
LD - JD Process Model


Specific Learning Disability
School Failure
Pressure by social system (School, Family)
Stress Reduction (Lying, cheating, manipulation truancy, fighting)
Recognition Techniques (Stealing, verbal & physical aggression, class disruptions)
Law Infracting Opportunities
Juvenile Offender

purpose is to divert the student from the criminal justice system to avoid further penetration, and to teach the juvenile community living skills that will allow him or her to survive and cope with the handicap. The program goals are:

1. Reduction of recidivism
2. Increased functional academic skills
3. Improved interpersonal relationship skills
4. Improved self-concepts

Adolescents are accepted into the project if they are between the ages of 12 and 18 years, have at least one recorded offense and are handicapped by a specific learning disability. A discrepancy definition of learning disabilities is used for identification. Referrals are made by court counselors. Once the referrals are received, data held by other community agencies are collected by the staff. Preliminary screening is conducted and a preliminary staffing is held. If a student appears appropriate for the project, a formal evaluation utilizing Weschler Scales of Intelligence and the Peabody Individual Achievement Test is conducted. At this point, for those juveniles who are suspected of being learning disabled an informal educational evaluation is accomplished by the project learning disabilities teachers. Another staffing is held during which the youth is accepted or rejected for participation, and planning is finalized. A parent-child conference is then scheduled, the test results and the project are explained, and the student is given the option of enrolling.

Participation in Operation Divert is voluntary. The intervention program is operated at the Mental Health Center. Students attend for three hours each morning, five days a week. Each adolescent is involved in the program for six months. Students are mainstreamed in the afternoons, attending the regular schools, a vocational training center or an on-the-job work site. They are transported to and from the center by the public school system. While at the Center, students are involved in three phases of intervention. The first is the classroom, which utilizes an open concept. Thirty juveniles is the capacity of the project at any one time. Two teachers and six paraprofessionals work with these students in academic areas. Operation Divert uses the Community Curriculum which it has developed to teach functional survival skills. The Community Curriculum consists of these eight units:

1. Law and Justice
2. Drug Use Orientation
3. Sexuality
4. Vocational Education
5. Consumer Education
6. Living Skills
7. Financial Management
8. Learning Abilities

A levels system for motivation is used in the classroom. Each student begins the program at entry level and is expected to progress through each of the next three levels before leaving. Each level carries specific privileges and responsibilities. To move to the next level the juvenile must obtain the consent of both his peer group and the staff. Failure to adhere to the responsibilities of his current level results in a drop to the next lower rung.

The second major focus of Operation Divert's services is counseling. Individual sessions are held with students both on a scheduled basis and on an "as needed" basis. An Adlerian psychological approach is utilized, which stresses individual responsibility. The students are involved in group counseling each day for an hour. Groups are reality-based and focus on problem solving and decision-making. Resource materials are used as well as values clarification exercises and communication skills exercises. The Operation Divert group topic areas consist of eight major headings. These are:

1. Decision making
2. Understanding behavior
3. Effective communication
4. Self assessment
5. Coping with emotions
6. Coping with authority
7. Peer relationships
8. Family relationships

Family therapy is offered when needed. Rather than focus on the adolescent in these family therapy situations, the family is viewed as a system with a

dysfunction, and all members are seen together.

The third aspect of the Operation Divert Intervention Program is vocational awareness. The project does not engage in vocational training, but does provide career orientation instruction to the student. When an adolescent reaches the top level of the motivation system, the staff assist in obtaining a placement in a part time job.

Parent training is provided in two stages. All parents are expected to participate in a four-session educational series that covers learning disabilities, adolescent development, and child management. For those parents interested in learning more about child management, a study group is provided that lasts for an additional nine sessions.

Evaluation data collected for two years indicate that Operation Divert is meeting its stated objectives. The major objective of the program is a reduction in recidivism among the students who have participated. Data indicate that the frequency with which students who have participated in the project commit repeated infractions of the law has been reduced by over 70%. The average academic gain per student is 1.5 months for each month of participation in the project. Major improvements have been noted in interpersonal relationship skills development. Additionally, anecdotal information from parents and teachers suggests that significant changes have occurred in the lives of students who have participated.

The Operation Divert model may be most useful in an alternative education setting where there may be more flexibility for its operation. Many parts of the model can be easily adapted, however, to other settings for use with exceptional students. In particular, the functional skills curriculum can be used in conjunction with other remedial programs. This model places more emphasis on developing affective skills than on teaching academic skills. As a result it may be more appropriate for older adolescents and for students who have made little or no progress in other remedial programs.

References

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STRATEGIES TO INCREASE LEARNING EFFICIENCY AMONG LEARNING DISABLED ADOLESCENTS

Project STILE is a Child Service Demonstration Center which was established in 1977 as a cooperative function between Unified School District 497 in Lawrence, Kansas and the University of Kansas. The model which has been developed by project teachers over the past three years is based upon a number of assumptions. I shall review these major assumptions first, and then elaborate on them in the following pages.

First, we believe that a learning disabilities program must be comprehensive. There are specifiable learning needs in this population and a learning disabilities program must address each and all of these needs.

Second, there are certain learning skills which are needed for success both in life and in school. Third, the learning disabled student must be prepared to overcome seemingly unrealistic learning demands independently. The modification of learning demands to compensate for student deficits is a temporary sort of treatment. If we are to have an impact on this condition at all, students must be prepared to deal with a rather hostile environment throughout life.

Fourth, we believe the learning disabled student can benefit from certain techniques which have been shown to facilitate learning. There is a body of information flowing out of learning theory and out of cognitive psychology that seems to have direct application to some of the problems of disabled students. We believe firmly that the role of the secondary learning disabilities teacher should be to use these theories and principles in order to teach skills which enable students to learn independently across situations and settings.

Finally, student growth, whenever possible, should be measured within the content classroom or within other applied settings. We would like to preclude the business of creating what I call "kit wizards". These are the students who are able to reach mastery on card after card, kit after kit and yet, when contact is made with the classroom teacher, demonstrate little progress toward independent learning behavior.

When I say that any program must address a full range of learner needs, what I'm really talking about are three individual criteria that have been established. First, we believe that students need to understand the physical and social world in which they live. The learning disabled student should be party to the same knowledge as his or her peers. It is as important for the learning disabled student as it is for his peers to understand why you don't stick one finger in one side of an electric socket and another finger in the other side. Adolescents who are discovering the opposite sex, learning to deal with authority, and setting career goals should be in as normal a milieu as possible. There are learnings that come from the content classroom which are valuable. Whenever possible we want to maintain the student in the regular program.

The second learner need is to meet recurring life demands adequately. We realize that there are demands which come up day after day both in life and in school. By targeting recurring demands for instruction we get the maximum power from the intervention that is brought to bear. As an example, one of the instructors at the high school (a content teacher) identified a textbook for use in class that has 36 chapters. Not coincidentally there are 36 weeks in the school year. On the first day of each week the students read the first half of the chapter. On the second day they read the second half of the chapter. The third day they answer the first set of questions and the fourth day they answer the second set of questions. On the fifth day they take a test. Now this is the kind of recurring demand to which I refer. If we can teach students within that classroom to do three things, we can then enable them to succeed in that setting: The student must learn to identify where the critical information is in the textbook, be able to answer some specific questions about that information, and then to demonstrate his knowledge to the teacher. If we can target only those three skills we can enable that student to make it quite successfully within that particular setting. A secondary school learning disabilities program should concentrate on recurring learning demands.

The third need of the learning disabled adolescent is to function as an independent learner in a variety of situations and settings. If an LD student has an academic or personal problem, he or she should be better able to solve that problem independently

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following involvement in a learning disabilities program. In summary, at Project STILE we target these learner needs: To enable the student to stay in the content classroom, to teach skills which have the broadest and most immediate application and to stress generalization of learning across situations and settings.

For some time now special education has focused on the skills of reading and writing, calculating and spelling. As we look at a comprehensive secondary school program we realize that although the ability to read and the ability to write are certainly important, they are not all-inclusive. Students are called upon to perform a number of very complex tasks as they sit in class after class throughout the day. Many secondary LD progams suffer from a narrowness of vision. A single-minded emphasis on the skills needed to function in grades one to four (i.e., the traditional "basic" skills) has made many programs unresponsive to the more complex needs of the adolescent learner. In the secondary school there are a number of crucial learning skills which students must demonstrate. Certainly they must still be able to calculate and read and write. Those skills do not diminish in importance. However, upon examination it becomes apparent that nearly half of the school day is spent in listening, and many of these students have very poor listening comprehension. Students are called upon to remember great quantities of information, to ask questions, to set priorities, to monitor errors, to make intelligent guesses and test those guesses, to solve problems, to read rapidly and flexibly (not to decode each and every word), to manipulate information and to take information that is presented to them one way and to convert it and use it another way. In short, there is a long catalog of skills which is tied directly to the students' ability to succeed in school. Figure 1 presents an example of some of these skills. The interesting thing is that when curriculum guides are examined we find that these skills are not taught within the regular curriculum. What is happening, we believe, is that students are being asked to demonstrate skills which were never taught. The inability to perform these skills results in a penalty assigned by the system that failed to teach students how to learn in the first place. A great deal of emphasis must be put on intensive instruction across a wider range of learning skills which are crucial in school and on the job.

Figure 1. CRUCIAL LEARNING SKILLS

CALCULATING
COMPREHENDING TEXTBOOKS
READING RAPIDLY AND FLEXIBLY
UNDERSTANDING BROAD ORGANIZATIONAL PATTERNS
DEMONSTRATING CONTENT UNDERSTANDING (RECALL, RECOGNITION, EXPLANATION)
USING TEXTBOOKS EFFICIENTLY
LOCATING INFORMATION RAPIDLY
UNDERSTANDING CHARTS, GRAPHS AND TABLES
IDENTIFYING KEY WORDS AND IMPORTANT POINTS
WRITING LEGIBLY
EXPRESSING IDEAS CLEARLY THROUGH WRITING
SPELLING CORRECTLY
MONITORING ERRORS
MANIPULATING INFORMATION
GENERATING AND TESTING OF HYPOTHESES
LISTENING COMPREHENSION
PRIORITIZING BY TIME AND IMPORTANCE
BRAINSTORMING FOR IDEAS
CLASSIFYING AND MAKING VISUAL REPRESENTATIONS
SOLVING PROBLEMS
TAKING NOTES FROM LECTURES
TAKING NOTES FROM WRITTEN MATERIAL
QUESTIONING

Within school there are a number of requirements which are the same as those required in non-school settings. If a student is asked to sit and listen to a lecture, there are certain things he or she must be able to do. The student must be able to understand the organization of the material to perceive the relationship between new material and that previously presented. The student must be able to identify key words and important points, and to know when to listen and when it is appropriate to be

less attentive. The student must be able to summarize, to put things into his or her own words, to understand what he or she is hearing in the lecture, to interact with the information in order to ask questions and to indicate when there is a problem in understanding. The ability to remember information and to take notes are other skills critical to success within the secondary school.

Since there is indeed life after high school, instruction within a learning disabilties program should address not only academic but life-long learning. Learning disabilities programs must be evaluated for their responsiveness to non-school learning needs to a greater degree.

Life after high school involves a wide variety of skill demands. A fairly simple vocational task, for example, may present many problems. Consider assignment of a worker to a new machine in a factory. There is not usually a great deal of training when such an assignment is made. The worker must be able to ask intelligent questions to find out how to operate the machine. He or she must be able to solve problems independently in order to avoid running to the foreman every time a problem occurs. Further, the worker must understand what is said (again, listening comprehension), make informed guesses and test them, identify mistakes when they are made and understand charts, graphs and manuals. These are many of the same skills necessary to complete assignments and understand textbooks in school. In short, there is a strong relationship between the skills that are prerequisite to school learning and those that are prerequisite to adequate job performance.

The assumption we operate under, therefore, is that the expectations placed on the learner in school and on the job are much the same and will not change quickly, if at all. We do not believe that life is going to change to meet the needs of the learning disabled student. Learners must be able to successfully overcome that mismatch between task demands and the skills they have acquired. Therefore, in Project STILE we teach learning strategies. We teach students techniques, principles or rules which enable them to learn independently and to solve problems. In essence, instruction in learning strategies is instruction in how to learn.

The learning strategies model is comprised of four steps. First, analyze the learning demands of the setting, identifying the crucial learning skills which are needed within that academic setting. Second, analyze the ability of each learner to meet those learning demands. Third, if discontinuity between demand and ability is found, provide direct instruction in learning strategies. Finally, teach toward generalization of the newly acquired strategies across content areas. A particular classroom setting might require the ability to listen critically, take notes, remember, and ask questions. We assess the student's ability in those learning skills and then provide direct instruction in any which seem overly weak.

Any concept of how to address learning needs requires a procedure for doing such. At Project STILE we have implemented an instructional method proposed by Drs. Gordon Alley and Donald Deshler of the University of Kansas Institute for Research in Learning Disabilities. The method which we use is comprised of three different components (see Figure 2). In the first, aimed at motivating the student, we have the student demonstrate the way in which he or she is currently attacking a learning task. We then demonstrate a more efficient way to solve the same problem. In so doing, we try to demonstrate to the student that while he or she may accomplish the task, it can be done much more quickly, and successfully. The second component is direct application of the skill. Learners are first asked to memorize a series of steps involved in a more efficient procedure. When the steps to this process are firmly in mind, the student applies them to low-level controlled materials. In this way we assure that the behavior is in place. We next strengthen the behavior by using increasingly complex materials. I might add here that since students are being expected to work in school in content materials, most instruction is carried on within content materials of varying complexity. Whenever possible we use the assignments and materials which a student has in his regular classes as the vehicle for providing instruction in how to become an independent learner.

The final component we emphasize is generaliza-

tion. We monitor the student's ability to demonstrate new skills in the regular classroom. All of our terminal objectives are written in terms of a change in performance within the regular classroom. Much of what we do is based on attention to specific principles of generalization which have recently been espoused.

Figure 2. TEACHING THE STRATEGIES

A. MOTIVATION

STEP 1:

Have the student perform tasks that demonstrate the approach he is currently using.

STEP 2:

Explain and demonstrate a different, more effective strategy.

B. APPLICATION

STEP 3:

Teach the student what the strategy is to an automatic level.

STEP 4:

Have the student apply the strategy in controlled materials.

STEP 5:

Have the student apply the strategy in increasingly difficult materials.

STEP 6:

Have the student apply the strategy to materials from the regular classroom.

C. GENERALIZATION

STEP 7:

Monitor the student's ability to use the strategy in the regular classroom.

STEP 8:

Provide additional instruction and reinforcement as necessary.

As in any model, the learning strategies model has some weaknesses. Time is needed in order to cooperatively plan with content teachers thereby minimizing the teaching of splinter skills. This model requires teachers to teach a process for learning rather than to give answers to students. This requires a change in philosophy and approach, which is difficult at the outset. There are few training programs which presently prepare teachers to deliver this type of instruction. Finally, although promising, this approach suffers from the same paucity of empirical support as do most others.

We believe that the strategies approach is a good one, and it seems to be working well with children. The program is designed to meet a full range of learner needs and is valued by students. It is directly applicable to content instruction, deals directly with student inability to learn and is very inexpensive to implement. Although not appropriate for all learning disabled adolescents (panaceas are in increasingly short supply), a learning strategies approach is certainly a viable option which should be carefully considered.

References

Alley, G. and Deshler, D. **Teaching the learning disabled adolescent: Strategies and methods.** Denver: Love, 1979.

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THE MODEL RESOURCE ROOM PROJECT

The model for mainstreaming at the secondary level developed in Plymouth, Michigan was funded under E.S.E.A. Title IV-C. This model represents an ecological approach in that it provides a framework which leads to instructional practices which best suit the needs of the student in his present school environment. The purpose of the approach taken in this model is to increase coordination and cooperation between special education and regular education teachers.

Research has shown us that handicapped students at the secondary level are often placed in classrooms for which they are not fully prepared. It has also been reported that regular education teachers have not been well trained to use a variety of techniques and materials in meeting the needs of the many levels of ability represented in their classrooms.

A series of structured interviews with teachers in both middle and high schools has been conducted, in which resource room teachers report that there is a need for more systematic consultation with regular education teachers, particularly regarding adjusting classroom expectations, basic teaching techniques, and understanding and managing problem behavior. In addition, these resource room teachers report the need to develop strategies for curricular planning and inservice development with regular education teachers rather than for them.

Regular education teachers report one of their major problems regarding mainstreaming is a lack of communication among all staff working with handicapped students. They report a desire for more information about handicapped students in their classes, including reasonable expectations, information about the students' strengths, and suggested techniques for teaching. In addition, these teachers report a strong feeling that the exchange of information should go both ways; there are many areas in which special education teachers should avail themselves of the expertise of regular educators.

Preliminary data regarding student performance indicate that achievement levels in the middle school fall an average of two to three years below grade level, and are three to four years below grade level in high schools. Further, high rates of absenteeism and failing grades have been found among these students. Although many handicapped students would generally rather not be given assignments which are different from their non-handicapped peers, they have been willing to attempt the same assignments through different methods. The intent of this model is to provide a framework within which regular education and special education teachers may cooperatively plan for the instruction of handicapped students in classes in the mainstream.

It is a six-step model which provides a systematic approach to planning and monitoring including:

1. Knowing the student's specific strengths and weaknesses
2. Knowing the expectations a teacher has for all students in his or her class
3. Identifying areas in which the student is likely to have difficulties
4. Developing a plan for overcoming those difficulties
5. Teaching basic content in general education classes and supportive instruction in special education
6. Monitoring the progress of the student for whom the plan has been developed

Figure 1 presents this model in graphic form.

The first step in the model is taken by the special education teacher. The resource room teacher compiles information about how well the student performs in acquiring information from a variety of sources and about how well the student shows what he has learned through classroom assignments. A student inventory (see Figure 2) is completed which summarizes this information for communication with other teachers. On this form, strengths refer to those information sources and types of assignments with which the student has dealt successfully at grade level. Weaknesses are also noted, referring to those items with which the student has had a history of difficulty. This information takes about fifteen minutes to compile and is particularly useful during the annual review of the student's individualized education program. At this time observations for the year may be consolidated for communication to the next

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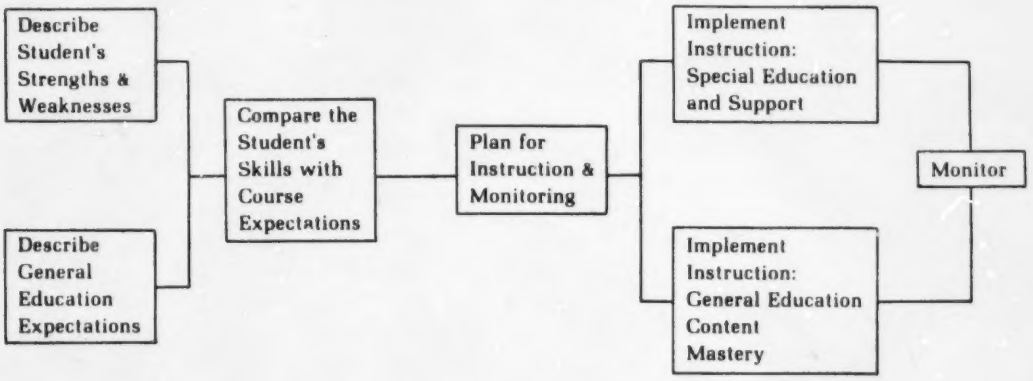
Figure 1. The Cooperative Planning Process


Describe Student's Strengths & Weaknesses
Describe General Education Expectations
Compare the Student's Skills with Course Expectations
Plan for Instruction & Monitoring
Implement Instruction: Special Education and Support
Implement Instruction: General Education Content Mastery
Monitor

teachers the student will have.

The second step in the model involves a structured interview of regular education teachers by the special education teacher. This interview results in the completion of a course description (see Figure 3) which summarizes the sources of information and types of assignments which the teacher expects students in that class to be able to use. This step provides a forum within which the special education teacher may obtain a clear picture of the expectations held for students in the general education class. It further provides an interchange between the two teachers for the purpose of clarifying their respective roles and responsibilities.

In the third step, a systematic comparison of the information gathered in the first two steps is conducted. When both teachers compare the two forms together, discrepancies which are found may be targeted for cooperative planning for the benefit of the student. A common outcome of this comparison is that specific areas calling for some form of modification are identified. Many teachers report that there are several other students in class who would also benefit from the modifications which are planned, and usually include these students when adaptations are considered.

In the fourth step, specific arrangements are made for the modification of assignments and instruction. In determining which alternatives might be appropriate, it is particularly important that both the regular education and special education teacher participate in this process. Such arrangements as reading tests to the students or having textbooks put on tape generally require logistical arrangements but do not require that specific assignment details be communicated. In other cases, such as identifying alternative or supplementary materials or providing tutoring on assignments, specific information must be considered to ensure that the alternative selected will be equivalent to that which is expected for all students (rather than a "watered down" version).

Once a plan has been established and a monitoring procedure agreed upon, the fifth step is to implement the plan. This often involves a two-part instructional program: The regular education teacher provides basic content instruction for mastery in the classroom and the special education teacher provides supportive tutoring and related basic skills training in the resource room. In this way the student receives his major instruction in subject matter areas from the person who is most qualified to provide that instruction, the regular education teacher. Further, the student receives intensive basic skills instruction from the special education teacher who has been trained to provide it. In helping a student complete an assignment it is important that the resource room teacher focus on the student's acquisition of skills. While reducing the stress of completing an outline for class, for example, the resource room teacher can also capitalize on the situation by directly teaching

organizing skills, identification of main ideas and the like.

The last step in the cooperative planning process (monitoring) is essential to the continuation of an effective plan for the student. While there are many logistical problems associated with getting around to all the teachers involved, it is very helpful to establish and maintain a routine procedure. The specific plan should lead naturally to specific questions to be asked. Monitoring is most effective when it is specific; questions should be clear, concise and planned in advance. This process requires considerable organization on the part of the resource room teacher and is made easier by the development of a calendar or chart to keep track of the assignments due and contacts to be made. It has also been found helpful to involve students in the monitoring of their own plans by having them communicate information back and forth between teachers.

In this model the special education teacher serves in essentially a dual role. As a teacher, direct instruction is provided to students for a part of the day. As a support to regular education teachers, consultation is provided regarding students' needs and appropriate teaching techniques.

In cooperative planning the special education teacher is one-half of a professional partnership working on behalf of the student. This partnership requires a mutual respect and an equal sharing of the responsibility and concern. Of the many skills a person has to have in this position, three areas have emerged as critical: communication with one's colleagues requires skills in interpersonal relations and information exchange; problem-solving skills must be used to help teachers define specific problems students are having and identify strategies for resolving those problems; and the resource room teacher must have good organizational skills in order to set priorities and solve vital logistical problems.

One of the results of this cooperative planning process is that both teachers involved increase their repertoire of knowledge and skills related to successful mainstreaming and can, therefore, function more effectively in similar situations in the future. External evaluators have been involved in conducting structured interviews with teachers who have used this process and have reported the following: regular education teachers report an increased awareness of the strengths and weaknesses of the students in their classes and an increased confidence that they can provide appropriate instruction to the mildly handicapped. They also report a feeling that the self-concept of the student has improved as a result of the concerted efforts made on his or her behalf. Perhaps most important to these teachers, many stated that the process has helped them in organizing their curricular material and presenting the material in a more consistent fashion, not only for the handicapped but for all students in their classes.

Resource room teachers report that classroom teachers have been more willing to have students receive help in the resource room for their regular education assignments, and that they have observed changes in student behavior as a result of cooperative planning. It was reported that negative behavior decreased when academic modifications were implemented. In addition, resource room teachers reported being better able to establish priorities for their own teaching and spending more instructional time in support of regular education course requirements.

The students themselves have reported a better understanding of the expectations placed on them (which they like). And they have completed significantly more regular education assignments than similar students without cooperative plans.

Clearly at the secondary level there are some pitfalls which will be encountered. Primary among these are problems with time and logistics - getting around to all of the teachers working with handicapped students. Some suggestions and techniques have been developed through this project which help, but those problems will never completely disappear.

In summary, this model provides a framework within which special education and regular education teachers can cooperate and communicate. It permits prioritizing of instructional objectives. It provides a structure for opening communication which historically has been closing, and it brings the student philosophically back into the mainstream of public education.

Figure 2. Student Inventory

Student _____ Certification _____ Date _____

School _____ Grade _____ Resource Room Teacher _____

Basic achievement levels: Reading _____ Math _____
Level Source Date Level Source Date

Resource room support needed: extensive moderate occasional

---

strengths + weaknesses 0 cannot do-cross out item

INFORMATION INPUT
(How student learns)

INFORMATION SOURCES

_____ TEXTBOOK
_____ WORKSHEETS
_____ LECTURE
_____ DISCUSSIONS
_____ A-V MATERIAL
_____ AUDIO TAPE
_____ CONCRETE EXPERIENCE
_____ OBSERVATION
OTHER:

STRUCTURE

_____ DIRECTED
_____ INDEPENDENT
_____ PEER TUTOR
_____ 1-1 ADULT
_____ SMALL GROUP
_____ LARGE GROUP/CLASS

INFORMATION OUTPUT
(How student responds)

TEST FORMAT

_____ WRITTEN
_____ ORAL
_____ SHORT ANSWER
_____ ESSAY
_____ MULTIPLE CHOICE
_____ TRUE-FALSE
_____ MATCHING
_____ COMPUTATION
OTHER:

ASSIGNMENTS

_____ SHORT PAPERS
_____ WORKSHEETS
_____ TERM PAPERS
_____ DEMO/LAB PROJECTS
_____ ART, MEDIA PROJECTS
_____ ORAL REPORTS
_____ GROUP DISCUSSION

SUGGESTIONS: _____

_____

I.E.P. GOALS: _____

_____

_____

PROBLEM CHECKLIST

(check only confirmed and repeating problems in the mainstream)

LEARNING PROBLEMS

ORGANIZATION *

___ becoming interested 1
___ getting started 1
___ paying attention to the spoken word 2
___ paying attention to the printed word 2
___ following directions 3
___ keeping track of materials, assignments 3
___ staying on task 4
___ completing task on time 4
___ working in groups 5
___ working independently 5

LISTENING/SPEAKING

___ learning by listening 6
___ expressing him/herself verbally 7

READING

___ reading textbooks 8
___ reading study sheet or tests 8
___ understanding what is read 9

WRITING

___ writing legibly 10
___ expressing him/herself in writing 11
___ spelling 12

THINKING SKILLS

___ seeing relationships 13
___ understanding cause and effect; anticipating consequences 13
___ drawing conclusions and making inferences 14
___ remembering 14

*(page numbers refer to the manual Maladies and Remedies)

BEHAVIOR PROBLEMS

___ coming to class on time
___ coming to class prepared
___ getting started
___ following directions
___ staying on task
___ staying in seat
___ completing tasks on time
___ participating in class discussion
___ interrupting or talking in class
___ uses inappropriate language
___ verbally disrespectful
___ harrasses other students
___ abuses property
___ cheating
___ gets set up by other kids
___ daydreams
___ demands a great deal of personal help or attention
___ working independently
___ working in groups

Student likes (interests and hobbies): _____

Student dislikes: _____

Is the home amenable to helping with student's program? ___Yes ___No

Comments and suggestions: _____

_____

_____

Figure 3. Course Description (To be approved by Classroom Teacher)

Course title | Department | Grade | Teacher

Textbook title/author | Reading Level

General goal of course: _____

How & where can we contact you? _____

✓ Used ✱ Used most frequently

INFORMATION INPUT
(Instructional methods)

INFORMATION SOURCES

_____ TEXTBOOK
_____ WORKSHEETS
_____ LECTURE
_____ DISCUSSION
_____ A-V MATERIAL
_____ AUDIO TAPE
_____ CONCRETE EXPERIENCE
_____ OBSERVATION
OTHER:

STRUCTURE

_____ DIRECTED
_____ INDEPENDENT
_____ PEER TUTOR
_____ 1-1 ADULT
_____ SMALL GROUP
_____ LARGE GROUP/CLASS
OTHER:

INFORMATION OUTPUT
(Types of assignments)

TEST FORMAT

_____ WRITTEN
_____ ORAL
_____ SHORT ANSWER
_____ ESSAY
_____ MULTIPLE CHOICE
_____ TRUE-FALSE
_____ MATCHING
_____ COMPUTATION
OTHER:

ASSIGNMENTS

_____ SHORT PAPERS
_____ WORKSHEETS
_____ TERM PAPERS
_____ DEMO/LAB PROJECTS
_____ ART, MEDIA PROJECTS
_____ ORAL REPORTS
_____ GROUP DISCUSSION
OTHER:

GRADING CRITERIA

Extra credit:

OTHER CLASS REQUIREMENTS

(check only high priority requirements)

ACADEMIC SKILLS NEEDED

___ Organization

___ Notetaking

___ Outlining

___ Independent research

___ Dictionary use

___ Spelling

___ Punctuation

___ Writing

___ Sentences

___ Paragraphs

___ Whole number operations

___ Math applications

BEHAVIOR SKILLS NEEDED

___ Come to class prepared:
paper, pencil, textbook
other _____

___ Follow written directions

___ Follow oral directions

___ Assigned seats

___ Stay in seat

___ Meet specific deadlines

___ Participate in discussion

___ Raise hand to participate

___ Work independently

___ Work in groups

Other prerequisites: _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Other classroom rules: _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

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OKLAHOMA CHILD SERVICE DEMONSTRATION CENTER

The Oklahoma Child Service Demonstration Center (CSDC) serves secondary level students who have been diagnosed as learning disabled. This project began in 1973 and received national validation in 1976. The model is an individualized diagnostic/prescriptive teaching intervention system which is based on a resource room model. Each LD student served by our center is tested individually by a psychometrist, and his/her specific strengths and weaknesses are identified. A prescription, or individualized instructional plan, is written. This plan capitalizes on the student's strengths and focuses learning on his/her weaknesses.

The philosophy of prescriptive teaching has three important conditions. First, it is essential that the student's sense of security be restored. Upon entering the resource room, students in the Oklahoma CSDC are administered the Piers-Harris Children's Self Concept Scale. The average score for these newly identified LD students is the fifth percentile. In essence 95% of all students normed at their grade level feel better about themselves than do these LD students. A person will not learn what he feels he cannot learn. Therefore, every prescription is designed so that during class sessions the student will experience success; fear, frustration and insecurity will be gradually eliminated.

Next, the student's area and level of confidence must be identified. This two-fold process involves determining the interest area and the instructional level of the student. The interest area stimulates motivation while the instructional level will insure an opportunity for academic success. The student's interest area may be identified through an incomplete sentence questionnaire and interest checklist. The instructional level may be determined through the use of specific individual diagnostic assessment instruments. For the student who has experienced years of academic failure and frustration, it may be many weeks before he/she begins to realize his/her success potential.

Finally, when the student is ready, he should be guided from his level of confidence by a series of challenge steps that lead to higher success levels. Providing academic success while increasing cognitive skills is possible through two avenues. The first avenue, or challenge step, would involve expanding the interest area of the student while remaining on the previous instructional level. The second avenue, or challenge step, would involve increasing the instructional level while remaining in the previous interest area. The student must continue to experience success at each step or his fear and insecurity will return. Secondary level students should be consulted and involved in establishing their own alternate paths to learning.

The major goal of this project is to provide each identified LD student within the target population with a specific prescriptive learning program that will enable that student to develop skills and knowledge at a rate commensurate with his/her ability level. The curriculum provided within this diagnostic/prescriptive model follows, where possible, the curriculum provided in the regular classroom. A student with a reading disability might be scheduled in the resource room for two periods a day for social studies and English. Another student with a math disability might spend only one period each day in the resource room for math.

Students are scheduled into the resource room based upon individual need for instruction in whatever course they will encounter the most difficulty. Their time in the resource room is limited to two hours a day at the most. At the other times, LD students are integrated into the regular curriculum. The content for the resource room is determined by a prescription from the prescriptive teacher which is aimed either at helping the student remediate or compensate for his/her disability.

The determination as to which skills to focus on for remediation and which skills to bypass, or provide the student with some compensatory strategies is made by the resource room teacher and the prescriptive teacher. Student input regarding the goals the student is most interested in accomplishing is also important information when making this decision.

The goal for each LD student in the program is eventual placement back into the regular class full time (mainstreaming). The decision for mainstreaming is based on the following criteria:

1. The learning disability is actually compen-

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sated for or remediated to grade level, or

2. a level of competency and/or confidence is achieved so that the student can succeed with some modification of his/her curriculum in the regular class.

The Oklahoma model is basically a diagnostic-/prescriptive intervention system. There are three key components in providing alternate paths to learning:

The first component is a professionally staffed resource room. Each resource room has an LD teacher who is responsible for providing individual and small group instruction in the resource room, assisting regular teachers in modifying their curriculum for mainstreamed LD students, and coordinating the resource program with the regular classroom.

The second component of the model is diagnostic-/prescriptive services. Each school using our model has the services of a prescriptive diagnostician who has particular ability in developing educational instruction intervention programs for these LD students which is based on information obtained from annually administered diagnostic assessment batteries.

The third component of this model is multi-media materials. A media library with equipment and materials appropriate for LD adolescents is available to the learning disabilities teacher in order to implement these intervention strategies. A wide variety of multisensory media is the basis for the compensatory and remedial aspects of the prescriptions.

Two additional components included in the model are affect and career development. To build the student's feelings of self esteem or self worth, group counseling has been implemented as an added treatment within the resource room. Sessions are conducted one hour a week for eight weeks and involve 9 or 10 students and 1 or 2 facilitators. Career education is infused into the student's total curriculum to assure that he has a realistic self concept, that he has positive attitudes and values toward work, and that he is prepared to make some realistic decisions concerning a satisfying career.

One of the keys to the success and popularity of the Oklahoma model is the inclusion of the prescriptive-diagnostician to facilitate programming both in the resource room and in the regular classroom. A vital role of the prescriptive teacher is to serve as a liaison between the regular education faculty and resource room teachers. In addition, other specific duties of the prescriptive teacher would be to administer and interpret diagnostic tests, to assist in writing IEPs and prescriptions, to develop techniques and strategies for resource room and regular education faculty, and to recommend appropriate materials for students placed in a regular class.

Several techniques which have been successful in this model in providing remedial and compensatory instruction to our students are color-coded textbooks, study guides, lowered readability tests, and tape recordings of content material. Color-coded textbooks assist the LD students who are having difficulty reading the material due to a slow reading rate or possibly as a result of an organizational problem. For the student who is unable to pick out the essential information from the entire material, color-coding points out the minimal necessary information that the student has to read. (To color-code a book, we recommend using three water soluable highlighter pens. The important vocabulary words are highlighted in green and their definitions colored in pink. Any additional information or important facts are highlighted in yellow).

Study guides have been useful to our LD students in reinforcing concepts and facts which the teacher expects the students to know. The study guide should be in the same format as chapter tests. For example, if fill-in-the blanks and multiple choice questions appear on chapter tests, then they should also be used on the study guide. It is helpful to the student if the page number on which the information can be found is indicated beside the question.

Many of our LD students take their tests orally since reading is often one of their weaknesses. However, to reduce the number of students needing to take their tests orally and to allow these students practice in taking written tests successfully, our prescriptive teachers have been lowering the readability of the regular classroom tests to reading levels that

the LD student can handle. This can usually be accomplished by rewriting the test questions using easier vocabulary and shorter sentences.

For the student who has difficulty reading even a color-coded text, a tape recording of the important information in each chapter is provided. If only parts of the text are recorded, an edited copy of the text is available to the student so he can follow along as he listens to the tape.

These techniques and many others have been especially effective when used in the regular classroom by content teachers of mainstreamed LD students. Many of our students can succeed in the regular class if modifications in instruction and/or evaluation procedures are employed by the regular teachers. The success of this model is evidenced by the fact that 1 in 5 of our students is mainstreamed full time after one year in our program and 1 in 3 students has been mainstreamed successfully after 2 years in the model.

The prescription, usually developed by the prescriptive teacher, is the link to coordinating the objectives in the IEP with the student's classes. Prescriptions are used by the resource room teacher for providing remedial and compensatory instruction to the student. As an example, consider the prescription represented in Figure 1. This represents a prescription developed for a student placed in a resource room for reading. The long and short term goals are directly derived from the IEP The prescription, however, is a working document which goes a little bit further. It allows these objectives to be met very easily by the teachers. An example in this prescription is that one of the objectives Keith has is to improve reading skills such as silent reading skills. In our prescription, we also list the materials that would be appropriate for this objective and any modifications that this student might need in meeting this objective. For example, in improving silent reading skills, it is recommended that Keith be given a focus for reading. It is also emphasized that he should not be encouraged to worry about his reading rate, but rather to de-emphasize it and give him a minimum time he has to read.

The regular teacher assists in developing the prescriptive plan for her class. She outlines her goals and expectations for the class and the prescriptive teacher assists her in modifying the requirements so that the LD student can succeed. For example, Figure 2 is an example of a student who has a prescription for a regular class; he is not placed for history in a resource room. His short term objective is merely to develop an understanding of the basic history concepts. The materials have been listed that he will need in his regular classroom as well as modifications which he will need in order to meet his short term objectives. One of the things Keith is going to need to have in his regular class is a study guide to prepare for his test. This might be developed by the resource room teacher, the prescriptive teacher, or the regular class teacher. Second, it is recommended that he be allowed to take his test orally. And third, he will need to use some supplementary materials which have been spelled out in the materials listed. A second short term objective which has been included in Keith's prescription would be work on some survival skills in test-taking and homework. Materials again are listed. Among the survival skills needing attention is listening comprehension. In addition, he might need to be taught some effective note-taking skills. This can be reinforced by the resource room teacher, but the main objective will be worked on in the regular classroom.

The major obstacle that has been encountered in the replication of our model has been a result of school districts which are unable to provide adequate prescriptive services to the schools. Often districts do not have funds to hire an additional staff member. In this case, it is recommended that the duties be assumed by the LD teacher. However, the key factor for this being an effective alternative is dependent on the LD teacher being allowed release time from teaching for these diagnostic/prescriptive services.

In summary, the Oklahoma CSDC is a diagnostic/prescriptive intervention system for secondary level LD students. It is based on a resource room concept. Each student in the program is individually assessed to determine his/her strengths and weaknesses. An individualized prescriptive plan, or prescription, is developed for the student for any class

which needs modification. The goal of our model is to eventually place the student back into the regular classroom full time. Mainstreaming is considered when the student's learning disability has been compensated for or remediated to grade level, or when the student has reached a level of competency and/or confidence so that he/she can succeed with modification in the curriculum.

Figure 1. Prescription for resource room.

NAME KEITH J. SCHOOL _____ RESOURCE TEACHER _____

AGE _____ BIRTHDATE __/__/__ SEX __M __F PRESCRIPTIVE TEACHER _____

GRADE _____ DATE __/__/__ PLACEMENT READING AND MATH

LONG TERM GOAL: IMPROVE READING SKILLS

SHORT TERM OBJECTIVE # 1: IMPROVE SILENT READING SKILLS

Materials: READING FOR CONCEPTS, READING COMPREHENSION, ACTIVITY CARDS, MOTORCYCLE MAGAZINES

Modifications: (1) Give Keith a purpose for reading (look for main idea)
(2) De-emphasize importance of rate. Give him a minimum time limit.
(3) Use language experience to supply success with written material.

SHORT TERM OBJECTIVE # 2: IMPROVE COMPREHENSION USING CONTEXT CLUES

Materials: TEACHER-MADE MATERIALS, MAGIC WINDOW, SPECIFIC SKILLS SERIES: USING THE CONTEXT

Modifications: (1) Use a cloze technique to help Keith develop skills using context clues.
(2) Magic Window is a variation of "Magic Multiplication" from "I Used to Could Spell Wensday"

SHORT TERM OBJECTIVE # 3: APPLY PHONETIC ANALYSIS

Materials: CLUES, HIGHWAY HOLIDAY SERIES, PROBE

Modifications: (1) Keith's use of phonetic analysis skills is inefficient. He has mastered decoding skills but has not learned to apply the skills. Encourage him to use the basic rules that he knows on unfamiliar words. Be sure to emphasize any successes.

Figure 2. Prescription for regular class.

NAME KEITH J. SCHOOL _____ RESOURCE TEACHER _____

AGE ____ BIRTHDATE __/__/__ SEX __M __F PRESCRIPTIVE TEACHER _____

GRADE _____ DATE __/__/__ PLACEMENT READING AND MATH

LONG TERM GOAL: TO IMPROVE HISTORY SKILLS

SHORT TERM OBJECTIVE # 1: TO DEVELOP AN UNDERSTANDING OF BASIC HISTORY

Materials: STUDY GUIDE, COLOR-CODED TEXT, BASIC ILLUSTRATED HISTORY OF AMERICA WITH TAPES

Modifications: (1) Keith will use a study guide to prepare for tests.
(2) Keith will be allowed to take his tests orally.
(3) He will use supplementary materials to review concepts presented in regular class text.

SHORT TERM OBJECTIVE # 2: TO USE SURVIVAL SKILLS IN TEST-TAKING AND HOMEWORK

Materials: LISTENING WITH A PURPOSE, COUNTDOWN (Scope 1 Study Skills 1) PATHFINDER LEARNER'S SKILL PROGRAM

Modifications: (1) Keith needs to work on compensatory study skills, such as listening comprehension.
(2) Teach him SQ3R and effective notetaking techniques.
(3) Show him how to use guide words in dictionary or encyclopedia.

SHORT TERM OBJECTIVE #__: _____

Materials: _____

Modifications: _____

CHILD SERVICE DEMONSTRATION CENTER FOR SECONDARY STUDENTS WITH LEARNING DISABILITIES

Prior to 1975 the Pittsburgh Public Schools had numerous self-contained classes and resource rooms for elementary-aged learning disabled students but very few programs for students with learning disabilities at the secondary level. Only itinerant services were available for those students. In response to the need for secondary programming, Dr. Naomi Zigmond and staff of the University of Pittsburgh Special Education Program worked with personnel from the Division for Exceptional Children, Pittsburgh Board of Public Education, to develop and implement a model program of comprehensive services to secondary students with learning disabilities.

This Child Service Demonstration Center (CSDC) evolved as a collaborative venture between the University and the local education agency. The University component included the regular, ongoing training and supervision of CSDC teachers, preparation and revision of materials to be used by LD students, and responsibility for dissemination and diffusion activities. The Division for Exceptional Children took on responsibilities of paying teachers' salaries, providing funds for instructional equipment and materials, providing release time for teachers to attend training meetings, and supporting the program within the total school system.

After the award of Title VI-G funds in 1975, the Pittsburgh CSDC model was implemented in one high school and one middle school. This CSDC model is now operating in all twelve Pittsburgh high schools and three middle schools. By 1978 the Division for Exceptional Children assumed total responsibility for all aspects of the secondary learning disabilities program. In addition to the Pittsburgh program, replication sites in rural, suburban, and urban centers across Pennsylvania are utilizing this CSDC model.

Rationale for Program Design

In designing the Pittsburgh CSDC model, three factors were considered. First, special characteristics of high school learning disabled students were studied. A review of school records revealed that these students had experienced learning problems throughout their school experience; their problems had not suddenly appeared upon entry into the secondary school setting. These students demonstrated chronic and severe deficiencies in the basic skill areas of reading, math, writing and spelling. Academic achievement was minimal despite average and above average intelligence. Many of the students also demonstrated deficiencies in independent functioning skills, i.e., those skills that are needed for daily living in a high school setting.

Second, characteristics of adolescents were considered in the design of this program. Adolescence is a time for the development of identity and a set of personal values. There is movement toward independence. Both handicapped and non-handicapped adolescents rely on their peer group as a primary source of information, support and validation. They need to be like everyone else, to interact with peers. This need became a critical issue in the design of this CSDC model.

Finally, current social values in education were considered when planning the model. The placement of students in least restrictive environments and the related effort to establish collaborative relationships between special and regular educators were essential factors in the design of this CSDC program.

Based upon a commitment to demonstrate that learning disabled adolescents could be brought to literacy, and a commitment to keep LD students involved in the normal activities of the secondary setting (i.e., in the least restrictive environment), the Pittsburgh CSDC was designed to meet several goals. The remediation of the basic academic and social skills that are necessary for survival in and out of school was the primary goal for this program. A second goal was the maintenance of learning disabled students in the secondary mainstream environment. These goals have been met by providing a variety of direct and indirect services to the students through two special education teachers assigned to each learning disabilities program in which the Pittsburgh CSDC model operates.

Direct Services

The focus of the direct service component of this CSDC model is remediation of basic skills. Students are assigned to a resource room (which is called a Learning Lab) for not more than two periods each day.

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Students are removed only from English or math classes to receive this basic skill instruction. In order to determine what and how to teach these students, diagnostic information is collected to ascertain students' strengths, weaknesses, learning styles and interests. In this way, the selection of individualized methods, of high interest materials for teaching, and of specific management programs for students is accomplished. Instruction is organized to move the student systematically toward the application of skills. To ensure generalization of newly learned skills, students eventually use materials from mainstream classes while in the Learning Lab. In the Pittsburgh CSDC model, one of the special educators, the Learning Lab teacher, is responsible for planning and delivering this basic skill instruction to students.

In addition to remediation of basic academic skills, there is a second focus for the direct service component of this CSDC model. To meet the needs of those students who lack the self management, social and study skills necessary for success in regular classes, the University staff, in cooperation with many of the CSDC teachers, developed a school survival skills curriculum. In this curriculum, emphasis is on the exploration and development of those skills necessary for survival both in and out of the school setting.

Before teaching students any of these school survival skills, information is collected regarding expectations in the mainstream setting, both in and out of classrooms. The focus of this exploration is directed toward those expectations that are non-academic in nature (for example, getting to school on time, attending classes regularly or going to classes prepared with pencils and books), as well as with expectations for specific organizational and study skills that students need when they are in content area classes. Once these expectations are clarified and compared with student performance, the second special education teacher (the Resource Teacher) and the Learning Lab teacher share responsibility for planning and teaching school survival skill lessons. The teaching sessions are carried out once a week in the Learning Lab with a small group of students. The small group format is utilized for two reasons. First, peer support is crucial for adolescents learning new social and self-management skills. Feedback from peers regarding appropriate behavior is often more valued than the same input offered from adults. Second, small groups offer a structured, yet still individualized format for learning study skills such as note taking or listening to lectures. Practicing these skills in a small group is one step toward applying these skills in a large group, regular classroom setting.

Indirect Services

The Resource Teacher's involvement in planning and teaching the school survival skills curriculum is only one part of that teacher's role in providing services to LD students. The problems that LD students experience in learning are exacerbated at the secondary level because curriculum is developed, interpreted and presented by content area specialists; for the most part secondary teachers perceive that they lack the training and the orientation necessary for teaching LD students and modifying instruction to meet those students' needs. The Resource Teacher therefore acts as a liaison between the students and the mainstream teacher to help the student "make it" in the mainstream setting.

To provide indirect services to LD students, Resource Teachers work primarily on a one-to-one basis with content area teachers who have those students in their classrooms. The Resource Teacher uses a structured problem-solving approach to help the mainstream teacher identify causes for student problems in the regular class setting and develop alternative methods for teaching or management. The regular class is conceptualized as a system comprised of five subsystems, including methods for organization, management, presentation, practice and testing. Often, comparisons of expectations for students in each of these subsystems with information collected from the Learning Lab regarding actual skills and abilities of students reveal mismatches between student performance and class requirements. The Resource Teacher and mainstream teacher then work together to plan and implement modifications within specific classroom subcomponents (see Figure 1).

The second part of the indirect service component of this model allows Resource Teachers to reach a greater number of mainstream teachers. In addition

to one-to-one contacts with mainstream teachers who have LD students in their classes, the Resource Teacher offers inservice workshops for teachers in the building. Although Resource Teachers are primarily concerned with the progress of LD students, mainstream teachers are concerned about all students in their classes. Therefore, workshops are designed to help teachers learn to cope with the needs of any "problem learner." Mainstream teachers are often more willing to make instructional modifications for LD students if benefits to other students are apparent.

Workshop meetings are held after school hours, and attendance is voluntary. Workshops may involve presentations regarding specific information about the learning disabilities program in the school or information about new materials or methods that teachers might use in their classroom. They might be problem-solving workshops in which a group of teachers who have one student get together to think about how best to deal with that student in content area classes. Workshop sessions may provide opportunities for teachers to share their own ideas regarding successful teaching techniques or management techniques. While Resource Teachers conduct many of these sessions themselves, resources 'om within the school (the principal, counselors, or support staff), from the central administrative office or from outside agencies are often called in to be a part of these workshops. This utilization of internal and external resources has helped in the past several years to generate a great deal of administrative support for staff development activities in the secondary schools.

An important feature of the Resource Teacher role is that he or she, as a full time staff member in the building, can provide follow-up to consultation and workshop activities. Immediate clarification about information presented at workshops, as well as opportunities to try out new teaching ideas with Resource Teachers' support and guidance, are benefits for mainstream teachers that are unique to the Pittsburgh CSDC model.

Summary

Through the provision of both direct and indirect services in this two-teacher model, LD adolescents' needs are met. The two-teacher design of the Pittsburgh CSDC program requires ongoing collaboration between the Learning Lab teacher and Resource Teacher. This is a critical factor and must be considered when training the two teachers. Then, as a team, the Resource Teacher and Learning Lab teacher work with mainstream teachers to meet student needs in regular classes.

Two unique aspects of this model of this model are worth examining more closely. The school survival skills curriculum offers an alternative to students to help them succeed in mainstream classes. In essence, the school survival skills curriculum gives students a chance to learn skills that are generalizable to a variety of settings. It is an alternative to tutoring, and includes three strands of instruction:

1. In the behavior control strand, students learn to understand that their behavior leads to certain consequences and that by choosing specific behaviors they can control what happens to them.
2. The teacher-pleasing behavior strand helps students identify and practice specific classroom behaviors that will elicit positive responses from teachers (e.g., making eye contact when speaking to the teacher; looking attentive; looking prepared). These are behaviors that most of us assume naturally. Students are helped to generalize these behaviors to other situations where they will have interactions with authorities (such as work situations).
3. The study skills strand helps students deal with mainstream expectations in a systematic manner. Students learn to take notes, use textbooks and take tests so that they can keep up with others in the regular classroom setting.

The second unique aspect of the Pittsburgh CSDC model involves the analysis of classroom systems which is utilized in consultation with mainstream teachers. Resource Teachers have worked with mainstream teachers to develop a wide variety of classroom alternatives to meet students' needs. Mainstream teachers are pleased to realize that

alternatives in each classroom subsystem are often easy to accomplish and benefit many students in their classes.

Based on our analysis of student data and our interviews with teachers and administrators, we are confident that this Pittsburgh CSDC model works. Through a direct and indirect service delivery system, special and regular educators are established as equal partners in providing successful educational experiences to learning disabled students in secondary schools.

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Figure 1
REALISTIC ALTERNATIVES FOR A MAINSTREAM TEACHER

Classroom Organization	Classroom Management	Methods of Presentation	Methods of Practice	Methods of Testing
Vary grouping arrangements large group instruction small group instruction individual instruction peer tutoring independent self-instructional activities learning centers Vary Methods of Instruction teacher directed student directed	Vary Grading System homework tests class discussion special projects Vary Reinforcement Systems praise notes sent home grades free time special activity tangibles progress charts Vary Rules differentiated for some students explicit/implicit-discussion	Vary Content amount to be learned time to learn new information conceptual level Vary General Structure advanced organizers previewing questions cues, mnemonic devices provide immediate feedback involve students actively y Vary Type verbal-lecture written-texts worksheets demonstration audio-visuals tape recorders filmstrips movies opaque projectors transparencies	Vary General Structure amount to be practiced time for practice group/individual teacher directed/ independent items ranging from easy to difficult Vary Level of Response copying recognition recall with cues recall without cues Vary Type of Materials worksheets texts audio-visual equipment	Vary Type verbal written demonstration Vary General Structure group/individual amount to be tested time for completion time for completion Vary Level of Response recognition recall with cues recall

SYNERGISTIC EDUCATION: A COMPREHENSIVE PLAN FOR LEARNING DISABLED ADOLESCENTS

The Program that I will discuss was funded by a Bureau of Education for the Handicapped grant issued in 1977 to the University of Houston in Texas. The program was a joint undertaking of the Education Department of the University of Houston and the Spring Branch Independent School District in Houston. It was under the direction of Dr. Charles Meisgeier of the University faculty.

The purpose of the grant was to design a program addressing the needs of the learning disabled adolescent. The initial step in the program was to undertake an analysis of the needs of this particular population. Five basic characteristics were identified in this population. The first was a low academic skill level characterized by a reading level at times as much as five or six grade levels below the grade placement of the student. This reading level was accompanied by a low level of comprehension of the material that was read. In addition to that, most of the students were found to have very slow rates of performance.

The second factor which characterized this population was a poor self image. After years of failure these students had a very poor attitude toward school and toward the learning situation in general. In addition, the students had very low levels of motivation. They had difficulty establishing and maintaining relationships both with their peers and with adults, and they did not feel that they were in control of their lives. They did not feel that the actions that they took had any significant effect on the outcome of what happened to them.

The third area identified was poor communication skills. Not only were these students deficient in oral expression but they had very poor if not nonexistent discussion skills (a skill that is prerequisite in a secondary academic setting). In addition to that, they had very poor written communication skills. The fourth factor noted was poor regular class performance. This was characterized by a failure to complete task assignments, a very poor level of attendance and a very low level of achievement on tests.

The fifth factor characteristic of this group was inadequate parent involvement. This included not only a low level of parent participation in designing the program for their children but also a low level of understanding on the part of the parents of the child's handicapping condition and what that really meant for the child in establishing realistic expectations. Most parents indicated that their interactions with their students were not satisfactory, frequently characterized by discord and strife.

In order to effectively meet the needs of the secondary learning disabled student, all of the above areas need to be addressed in order to maximize the impact of the program on the student. The word "synergy" describes a response in which independent elements combine to create an effect that is greater than the sum of the parts. When the components interact they have a magnifying effect. It is this multiplying effect that results from addressing all of the above areas that is the goal of the program we call Synergistic Education.

The Synergistic Model has four component parts. The first is a High Intensity Learning Center, composed of an academic program and a program that addresses social-behavioral skills. The second component is a Parent Program designed to stimulate an increased level of parent involvement. The third component is the Content Mastery Program which is a support system for the student in the regular class. The fourth program is an Essential Skills Program designed to continue the academic remediation that was developed in the High Intensity Learning Center. Figure 1 illustrates this model and the relationships between the four component parts.

After an initial assessment the student enters the High Intensity Learning Center. This program operates for three hours a day for twelve weeks. It is a highly intensive academic atmosphere. In this component the student is exposed to two hours of reading remediation and one hour of a social-behavioral curriculum.

While the students are participating in the High Intensity Learning Center, the Parent Program is also in operation. The Parent Program is conducted in the evenings. By running the program in the evenings it is possible to maintain a higher level of parent participation, particularly on the part of the fathers. The parents meet once a week, and each session usually

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lasts for two hours. At the conclusion of the twelve week High Intensity Learning Center the student is mainstreamed back into regular classes with the support of the Content Mastery component. In addition, he has available to him the Essential Skills Program which can continue the academic remediation that was developed for him during the initial twelve weeks in the High Intensity Learning Center, if this should be necessary.

The overall goal of the High Intensity Learning Center is to increase the student's reading and social-behavioral skills at a rate that is greater than typically would be expected. If we, as educators, can only manage to increase a student's skills by one grade level each year, all we are doing is maintaining a deficit that already exists. That is simply not satisfactory, particularly at the secondary level when the students have so little time left.

The key features of the High Intensity Learning Center are threefold. The first is a very structured intensive reading program that emphasizes developing reading fluency and skill. The critical feature of skill development of this program at the secondary level is that it focuses almost exclusively on the skills of comprehension and vocabulary development. The second feature of the High Intensity Learning Center is a 60-lesson social-behavioral program, in which there are five major goals:

1. To develop within the student an acceptance of himself in a positive and realistic manner viewing his strengths as well as his weaknesses. Once a student has come to self-acceptance, he is then in the position from which he can begin to build a strong self concept.
2. To develop communication skills, emphasizing both verbal and non-verbal communication.
3. To develop within the student, assertiveness, i.e., the ability to express his ideas and feelings in a positive and socially acceptable manner.
4. To develop self responsibility within the student. To foster the feeling that he is in control of his life; that his actions are purposeful; and that they do have an effect on what happens to him in his life. (This results in increasing his motivational level.)
5. To provide a very structured introduction to problem-solving, in which the students learn a systematic way to approach a problem.

The third and perhaps the most important aspect of the High Intensity Learning Center is an emphasis on the positive. This has best been summed up by a student's statement, about half way through the program, in which he said, "Gee, this is really neat. In my regular classes all the red marks tell me what I do wrong and here they tell me what I do right." The results of the twelve week program indicate its effectiveness. The mean growth in reading in twelve weeks was one year in total reading, 1.2 years in reading comprehension and 1.5 years in reading accuracy. Significant gains were also demonstrated in the students' self-acceptance. In addition, students indicated that they felt they were in control of their lives and that their actions did indeed have positive results.

The next component of the model is the Parent Program, the overall goal of which is to involve parents as knowledgeable and supportive members of the child's educational team. The key features of the parent program are threefold:

1. It focuses on the two-way information exchange between parents and the school. Its basis is positive communication between the two. (Let's let each other know what is going right.).
2. It provides a support group in which parents have the opportunity to share concerns and derive support from each other regarding similar problems and difficulties that they face.
3. It offers an instructional component, in which parents learn skills similar to those that the child is learning in the high intensity social-behavioral program. Parents are provided with a broader knowledge base about special education through several lessons on the law and on

what their child's specific learning disability is. The parents come into the classroom to observe the program, materials and techniques being used with their child.

The effectiveness of the program is illustrated by typical parent comments at the conclusion of the program. These include, "I have more respect now for the efforts of my son"; "Life is much less frustrating for both my child and me since we have a better understanding of his learning disability"; and "I now have a closer relationship with my child. We are more open with each other and there is more understanding between us." In the three years the parent program operated, we had an average participation rate of 74%.

The third component of the model is the Content Mastery Program. The overall goal of this program is to create conditions which encourage learning disabled students' success in regular classrooms. This is accomplished by providing instructional accommodations in that setting and by providing teacher consultation and teacher support. The key features of the Content Mastery Program are threefold:

1. It is a support system for the regular classroom teacher, to help him/her know what to do with this student, and how to do it.
2. It includes a set of procedures by which the regular classroom teacher is trained in instructional techniques to adapt to the particular needs of the learning disabled student. It includes such adaptations as test modification, taped texts, highlighted texts and student mentors.
3. It provides an instructional unit on study skills which addresses such skills as textbook usage, how to study, how to take tests and how to take notes.

In evaluating the Content Mastery Program it is significant to note that the average time in special education classes dropped from 2.8 to 1.5 hours per day when the students were in the program. The goal was satisfactory performance in the regular class. This was measured by a grade of "C" or above. The students maintained an averge of 2.7 (on a four point scale), which is a "B-". Perhaps the most critical feature of all in evaluating the program is regular teacher support. Roughly 40% of the total faculties in the schools cooperated actively with the program. In viewing the academic faculty as a separate unit, 60% cooperated in an active and supportive way.

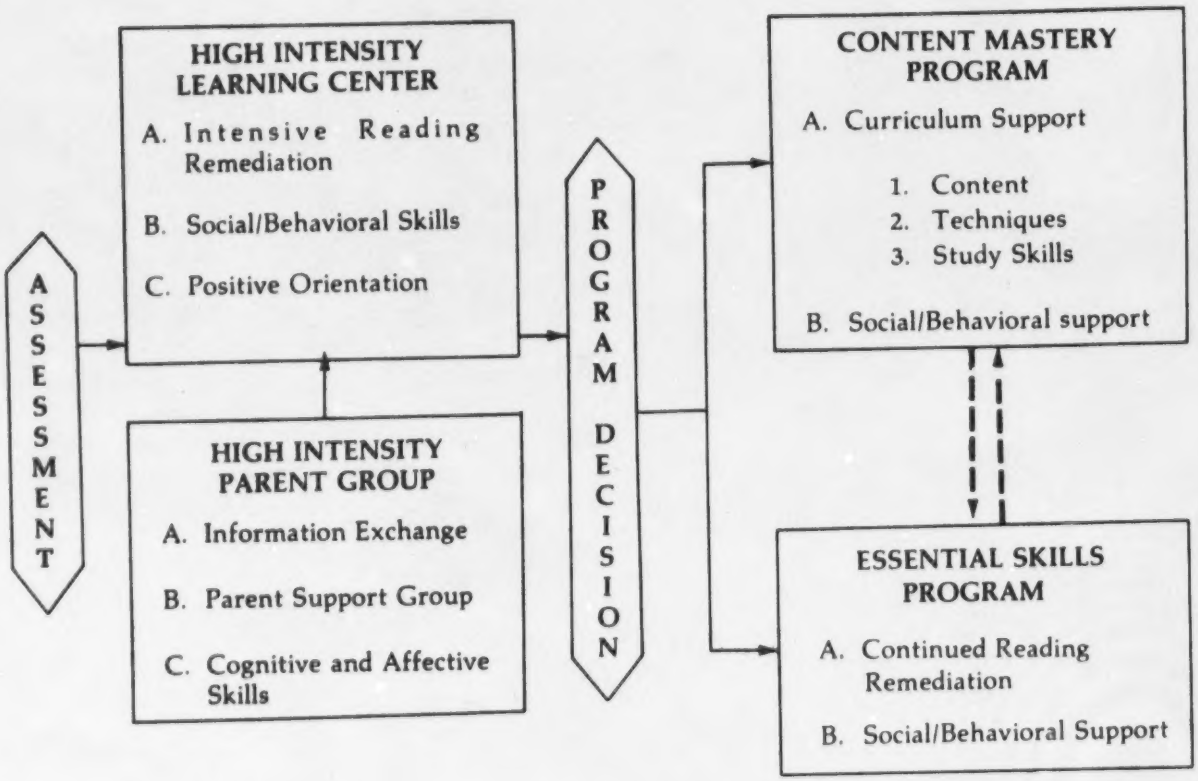
The final component in our model is the Essential Skills Program. The overall goal of this program is to continue the students' growth in reading and social-behavioral skills. The key features of this component are continuation of skills remediation focusing on comprehension and vocabulary skills, and continuation of the reading fluency program. In evaluating the Essential Skills Program we again find significant gains in reading during the time that the students were in the program. In addition to maintaining the gains made in the High Intensity Learning Center, students in the Essential Skills program continued to progress. By the end of the year, they had average gains of 1.6 years in total reading, 1.9 years in reading comprehension and 2.4 years in reading accuracy.

In summary, the Synergistic Education program 1) addresses the remediation of basic academic skills; 2) develops a positive self concept through a structured social-behavioral program; 3) puts a major emphasis on involving parents in an active and supportive way with their students; and 4) supports students in the regular classroom. Evaluations indicated that the program was successful in reaching all of its major goals. It does indeed produce significant academic gains. Marked improvement was demonstrated in the student's self concepts and thus his motivation to succeed in school and in life in general was increased. The program fostered successful performance in the regular classroom and a high level of parental invovlement was created and maintained.

There are some major concerns associated with this model, as well as with any model which deals with the secondary level. The first and major concern is the degree of acceptance of the regular teacher for the handicapped, and their willingness to work with these students in the regular class setting. The second concern is that the special education teacher in the role of a consultant to the regular classroom teacher must have some very specific communication and

consulting skills. Training programs for the regular teacher in acceptance of the handicapped, and for special education teachers in specific communication and consulting skills are currently being developed. Both of those training programs will be available by spring of 1981.

Figure 1. The Synergistic Classroom Model



IMPLICATIONS OF THE SEVEN MODEL SECONDARY PROGRAMS FOR TEACHER EDUCATION TRAINING PROGRAMS

I will be reacting to the model secondary programs from the perspective of teacher training for the secondary special education teacher. While my comments will be basically focused on pre-service programs, they are equally applicable and necessary for inservice efforts. First I will review some generalities about regular secondary education. Then the focus will be on the specific key areas of implications that are evident as a result of the research and development conducted by the seven model programs featured in this production. Additionally I will briefly discuss some factors, in addition to the model programs, which should currently be taken into consideration as influences on teacher education. A summary statement will complete my reactions.

I would like to briefly remind you about some general characteristics inherent in regular secondary teacher education programs before looking at special education. In regular education training, teachers are rarely given more than thirty semester hours in educational methods, including their student teaching experience. Preparation concentrates on acquisition of content in curriculum areas such as math, science, or industrial arts, with little emphasis on the hows and whys of teaching. Classroom teachers are basically prepared to present content to great numbers of students who will be in contact with them for short periods of time in any given day. Due to this organizational system in most high schools, the special education teacher must function in a logistically complex situation. When a handicapped student encounters some difficulty in learning or in adjusting, special education teachers have to be extremely flexible and creative in their intervention to deal with this complex system. Additionally, attitudes toward accommodating the student who is atypical or handicapped in the regular classroom are often negative. Negative attitudes provide one more major obstacle.

Nationally, there are few training programs in special education that are providing viable solutions to the complex problems secondary teachers must meet in the field. Secondary special education programs have historically been an extension of an elementary training program by offering a K-12 certification, but seldom by including specific training for the secondary setting. Because there are currently only a few existing programs that are specifically designed for secondary education, there is a major need for new training programs to meet the complex needs in secondary schools.

The models that have been presented offer a never before available wealth of information that has high potential useability in newly emerging secondary training programs. Having personally visited several of the model sites and having interacted with many of the project personnel on numerous occasions at small working conferences, I can safely say that the seven models have tremendous amounts of information to offer. What has been presented barely scratches the surface of their potential. Keep in mind also that all of this information has been developed by the project personnel who worked directly with handicapped adolescents and their regular classroom teachers. The efforts have not been research projects isolated from reality. While the amount of information available is voluminous, I feel it is necessary for training programs to use much of it in their curriculum, if their programs are going to meet needs both efficiently and effectively. Teacher trainers therefore must educate themselves to new information and then offer the information to their students. Acquisition of new knowledge and updating of programs need to go on continually.

The seven models have many commonalities that are transferable or generalizable to teacher training. All of the models have shown various viable ways of educating handicapped adolescents; all have a uniqueness to their design; all have a clear structure or system for providing intervention or support; all are flexible in meeting the individual needs of students; all take into account other systems that impact youth such as parents, community, peers, and regular education; and all have been developed in reality based situations in actual school settings. None, however, try to sell themselves as having either the total answer or the final answer in secondary learning disabilties. They are just a beginning, but a viable beginning. I would now like to take the seven models and delineate some basic implications that I see resulting from them that might form an initial minimum structure for secondary teacher education:

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1. Teachers must have organizational skills, problem solving skills, and planning skills in order to develop and actualize efficient, effective programs for youth.
2. Teachers must have knowledges about typical growth and development patterns of adolescents keeping in mind that most handicapped students are more like other students than they are different.
3. High schools are the last opportunity for teachers to provide life readiness. Teachers must have knowledges about developing independent behaviors in their students as well as cooperative interactive behaviors, both of which will be necessary as life maintenance skills beyond high school. Career education as a broad concept for enabling life success must be integrated into programs, in addition to typical academic and social skills.
4. Teachers must have assessment skills to determine what a student needs and to know what programming is appropriate. The seven models offer a broad menu for programming that, when chosen well and in the right amounts, can serve the unique needs of most handicapped students.
5. Teachers must therefore develop an openness and flexibility in their approach to education based on the knowledge that there is no one way to teach and no one easy answer for the complex problems often encountered by the handicapped student in the secondary school.
6. Teachers must be trained in how to seek future information. Since it is apparent that in the typical amount of hours offered in even a full four year preservice teacher education program, teachers cannot be given all answers to all problems, they must know how to seek further information. The vast amount of techniques offered in the seven model secondary programs must be somehow accessible to the teachers when the time and need arises, since teachers cannot be totally trained in depth in all models prior to their initial teaching.
7. Teachers must have skills in evaluation of the effectiveness of instruction and programming and be able to make assessments an integral part of the teaching process. Good questioning skills are an essential part of the assessment process.
8. Teachers must know how to communicate with others and how to recognize whether they are using a language system that all involved understand in their communications. All too often special educators do not even realize when they are using understandable vocabulary and language patterns. If, therefore, there is to be appropriate and useful communication, the special education teacher and others must take an active part in determining that a common, easily understandable language is used. Common language is a basic necessity when parents, teachers, and students communicate.
9. Teachers should be aware of the abilities of all professionals involved with students, as well as looking at families as a knowledge resource. Teachers must truly believe that all involved can offer useful information. They need to realize that both special and regular teachers are critical to the handicapped student's education and that both have much to offer. The ability to be a good team member is critical.
10. A teacher must have knowledges of the basic rights and responsibilities of all teachers in relation to students, families and schools. This of course includes knowledge of due process procedures and development of useful individualized education programs.
11. A final point in teacher training that should be kept in mind is that high school settings approximate university teaching settings to a great degree. The potential for using the university setting as a model itself for

> desirable teaching behaviors is something that should be capitalized on. Teacher trainers should use the same behaviors in their teaching as they expect their future teachers to exhibit: good planning; decision making and problem-solving; giving students a variety of ways to learn and to respond; and assisting in increasing students' strategies for efficient learning. These should be an integral part of teacher training as it takes place. . .not a process that is simply described to future teachers. If teacher trainers are going to teach a skill to others they should be able to demonstrate it.

These seven model programs do not contain all necessary or final knowledges. Other efforts which are being focused on mainstreaming include research and development programs such as the Deans Grants on preservice regular education for the handicapped; the Handicapped Children Model Programs; the National Inservice Network projects; Teacher Corp Projects; the five national Institutes for Research on Learning Disabilities (one of which, at the University of Kansas, is concentrating on the adolescent); as well as other governmentally funded and privately sponsored research and development. The work of the Council for Exceptional Children, in particular some of the divisions such as the Division for Children with Learning Disabilities, the Teacher Education Division, and the Division for Career Development must also be considered as major impacting forces on teacher education practices.

The vast amounts of knowledge accumulated in the seven model programs and in other research and development projects, although not having the final answer, have much to offer teacher training at both the preservice and inservice levels. Networks of communication to facilitate access to the knowledges currently available must be developed. Research and development must be continued and ideas replicated and continually translated into useable and useful curriculum. Both teachers in the field and the teacher educator who is forming the philosophies and knowledges of new teachers must continually update their knowledges. This symposium is but a beginning of the learning, growing, and sharing that must take place between all levels of educators . . . regular and special teachers in the schools, teacher trainers, administrators, researchers, and all others, if the complex issues of secondary education for the handicapped are to be resolved so that handicapped individuals may be properly prepared to take their rightful place as active members of society.